I Claim:

1.    A communications system comprising:

a ground-based, fixed data rate commercial communications network wherein a first data stream is transmitted in fixed length datagrams comprising cells or frames;

a high speed, variable data rate satellite communications network, wherein a second serial data stream is transmitted in frames having an Emitter Coupled Logic (ECL) signal format, and wherein each of said frames is comprised of plural cells;

synchronization means for monitoring and comparing timing of said first data stream and said second serial data stream and for either adding or removing non-data bearing idle cells in said first data stream for synchronizing said first data stream with said second serial data stream;

error correction means for providing a first error correction value to said first or second data streams for correcting a first error level in data transmission;

error detection means for monitoring said first or second data stream and determining a current error level and providing a second error correction value representing said current error level; and

comparison means for comparing said first error correction value with said second error correction value and for providing said second error correction value to said first or second data stream if said second error correction value differs from said first error correction value.

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2.    The communications system of claim 1 wherein said synchronization means includes frame acquisition means for detecting the beginning of a frame.

3.    The communications system of claim 2 wherein said frame acquisition means includes detection and comparison means for comparing a detected frame number with an expected frame number.

4.    The communications system of claim 1 wherein said error correction is of the Reed-Solomon type.

5.    The communications system of claim 1 wherein said error detection means determines a current error level with receipt of each cell.

6.    The communications system of claim 5 wherein each cell is comprised of plural bits and said error detection means detects a bit error rate in said first or second data stream.

7.    The communications system of claim 6 wherein said first and second error correction values provide forward error correction in said first and second data streams, respectively.

8.    The communications system of claim 7 wherein bits are used for error correction, with increasing numbers of bits used to correct bit errors with increasing bit error rate values.

9.    The communications system of claim 8 wherein said first error correction value is selected by a communications system user.

10.    The communications system of claim 9 wherein said error detection means determines said current error level after receipt of a predetermined number of frames.